UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/994,554	11/27/2001	Kenneth S. Bloom	17724 USA	8757

76254 7590 08/11/2009

REISING, ETHINGTON, BARNES, KISSELLE, P.C.
P.O. BOX 4390
TROY, MI 48099-4390

EXAMINER	
HYLTON, ROBIN ANNETTE	
ART UNIT	PAPER NUMBER
3781	
MAIL DATE	DELIVERY MODE
08/11/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KENNETH S. BLOOM and STEPHEN A. EILERTSON

Appeal 2009-000288
Application 09/994,554
Technology Center 3700

Decided: August 11, 2009

Before TONI R. SCHEINER, DEMETRA J. MILLS, and JEFFREY N. FREDMAN, *Administrative Patent Judges*.

MILLS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF CASE

This is an appeal under 35 U.S.C. § 134. The Examiner has rejected the claims for obviousness, lack of enablement, and indefiniteness.

We have jurisdiction under 35 U.S.C. § 6(b).

The following claims are representative.

16. A plastic closure that comprises:
a plastic closure shell including a base wall, and a peripheral skirt with an internal thread for securing the closure to a container finish,
a plastic disk loosely retained parallel to but separate from said base wall, said disk including a flat base with a peripheral portion, an axially extending protrusion for engaging an undersurface of said base wall to space said disk from said base wall, and an annular ring extending axially from said base adjacent to but spaced from a periphery of said disk, and
a resilient liner molded onto said disk covering at least a central portion of said base and said ring, said ring urging said liner into sealing engagement with a radially inner edge of a container finish when said closure is secured to the container finish.

19. The closure set forth in claim 18 wherein said liner includes a barrier resin material to resist migration of gases, water vapor or flavorants through said liner.

38. A closure and container package that comprises:
a container including a body and a finish with an external thread, and
a plastic closure that includes:
a plastic closure shell including a base wall, and a peripheral skirt with an internal thread securing the closure to a said container finish,
a plastic disk parallel to but separate from said base wall, said disk including a flat base with a peripheral portion, an axially extending protrusion for engaging an undersurface of said base wall to space said disk from said base wall, and an annular ring extending axially from said base adjacent to but spaced from a periphery of said disk, and
a resilient liner molded onto said disk covering at least a central portion of said base and said ring, said ring urging said liner into sealing engagement with a radially inner edge of said container finish.

59. A two-piece plastic closure that comprises:

a plastic closure shell including a base wall and a peripheral skirt with internal means for securing the closure over a container finish, and

a plastic disk loosely retained within said shell parallel to but separate from said base wall, and a resilient sealing liner molded in situ on said disk for sealing engagement with a container finish,

said disk including an annular ring underlying said liner on a side of said disk remote from said base wall, said ring being spaced from said skirt for urging said liner against a radially inner edge of a container finish when said closure is secured to the container finish,

said disk also including an axially extending protrusion for engaging an undersurface of said base wall to position said disk parallel to and spaced from said base wall.

60. A plastic closure that comprises:

a plastic shell including a base wall and a peripheral skirt with internal means for securement to a container finish,

a resilient sealing liner for urging by said base wall into sealing engagement with a container finish upon securement of said skirt to the finish, and

an annular ring underlying said liner and spaced radially inwardly from said skirt for urging said liner into sealing engagement with a radially inner edge of the container finish,

said ring being on a plastic disk loosely retained within said shell parallel to but separate from said base wall,

said disk comprising a flat base from which said annular ring extends, and an axially extending bead around a peripheral portion of said disk base to space said disk base from said base wall of said shell.

61. A two-piece plastic closure that comprises:

a plastic closure shell including a base wall and a peripheral skirt with internal means for securing the closure over a container finish, and

a plastic disk loosely retained within said shell parallel to but separate from said base wall, and a resilient sealing liner molded in situ on said disk for sealing engagement with a container finish,

said disk including an annular ring underlying said liner on a side of said disk remote from said base wall, said ring being spaced from said skirt for urging said liner against a radially inner edge of a container finish when said closure is secured to the container finish,

said disk comprising a flat base from which said annular ring extends, and an annular rib around a radially outer edge of said disk base extending away from said base wall and underlying said liner for engaging said liner against a radially outer edge of a container finish when said closure is secured to the container finish,

said annular rib having a radially inwardly directed surface, onto which a peripheral portion of said liner is molded, that extends axially and radially outwardly from said base of said disk.

62. A plastic closure that comprises:

a plastic closure shell including a base wall, and a peripheral skirt with an internal thread for securing the closure to a container finish,

a plastic disk loosely retained parallel to but separate from said base wall, said disk including a flat base with a peripheral portion and an annular ring extending axially from said base adjacent to but spaced from a periphery of said disk, and

a resilient liner molded onto said disk covering at least a central portion of said base and said ring, said ring urging said liner into sealing engagement with a radially inner edge of a container finish when said closure is secured to the container finish,

said disk including an annular rib around a radially outer edge of said disk base extending away from said base wall and underlying said liner for engaging said liner against a radially outer edge of a container finish when said closure is secured to the container finish.

63. A closure and container package that comprises:

a container including a body and a finish with an external thread, and

a plastic closure that includes:

a plastic closure shell including a base wall, and a peripheral skirt with an internal thread securing the closure to a said container finish,

a plastic disk parallel to but separate from said base wall, said disk including a flat base with a peripheral portion and an annular ring extending axially from said base adjacent to but spaced from a periphery of said disk, and

a resilient liner molded onto said disk covering at least a central portion of said base and said ring, said ring urging said liner into sealing engagement with a radially inner edge of said container finish,

said disk including an annular rib around a radially outer edge of said disk base extending away from said base wall and underlying said liner for

engaging said liner against a radially outer edge of said container finish, said annular rib has a radially inwardly directed surface, onto which a peripheral portion of said liner is molded, that extends axially and radially outwardly from said base of said disk.

Cited References

Takano	US 5,984,124	Nov. 16, 1999
Racine et al.	US 6,581,793 B1	Jun. 24, 2003
McBride et al.	US 6,761,275 B1	Jul. 13, 2004

Grounds of Rejection

1. Claims 3-24, 34-46, and 59-65 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement.

2. Claims 3-24, 34-46, and 59-65 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claims 3-8, 13-20, 37-42, 59, 60, 64, and 65 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Takano in view of McBride.

4. Claims 11, 12, 22-24, 45, 46 and 61-63 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Racine in view of McBride.

Enablement

1. Claims 3-24, 34-46, and 59-65 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement.

ISSUE

The Examiner finds that the claims recite a "'disk loosely retained parallel to but separate from'" the base wall, but provides no structure for this to occur. (Ans. 3.)

Appellants contend that all of the independent "claims of the present application recite that the plastic disk 46 is loosely retained parallel to but separate from the base wall 30 of the closure shell." (App. Br. 7.) Appellants argue that "the application as filed fully describes that the disk 46 is loosely retained within the closure shell 28 parallel to but spaced from the closure base wall 30." (*Id.*) Appellants argue "the application as filed discloses exemplary structure in the form of bead 66 to accomplish this function." (*Id.* at 7-8.)

The Issue is: Have Appellants demonstrated error in the Examiner's enablement rejection?

FACTUAL FINDINGS AND ANALYSIS

The Examiner finds that "the claim(s) contains subject matter which was not described in the Specification in such a way as to enable one skilled in the art . . . to make and/or use the invention." (Ans. 3.) "The claims set forth the 'disk loosely retained parallel to but separate from' the base wall, but provides *no structure* for this occurrence." (Ans. 3.)

Appellants contend that all of the independent claims of the "present application recite that the plastic disk 46 is loosely retained parallel to but separate from the base wall 30 of the closure shell." (App. Br. 7.) Appellants argue that "the application as filed fully describes that the disk 46 is loosely retained within the closure shell 28 parallel to but spaced from the closure base wall 30." (App. Br. 8) (Spec. 8, lines 1-2 and 15-18.) Appellants argue that the application as filed discloses exemplary structure in the form of bead 66 to accomplish this function. (App. Br. 8-9.)

We find the Appellants have the better argument as well as factual support in the Specification, where indicated, for the claimed features. The enablement rejection is reversed.

Claim Indefiniteness

2. Claims 3-24, 34-46, and 59-65 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The test for compliance for 35 U.S.C. § 112, second paragraph, is whether the claims set out and circumscribe a particular area with a reasonable degree of precision and particularity when read in light of the application disclosure as they would be interpreted by one of ordinary skill in the art. *In re Moore*, 439 F.2d 1232, 1235 (CCPA 1971).

FACTUAL FINDINGS AND ANALYSIS

The Examiner finds that the claims are indefinite due to the recitation of a "'disk loosely retained parallel to but separate from'" the base wall, but provides no structure for this to occur. (Ans. 3.)

Appellants argue that "the application as filed fully describes that the disk 46 is loosely retained within the closure shell 28 parallel to but spaced from the closure base wall 30." (App. Br. 8.) (Spec. 8, lines 1-2 and 15-18.)

In our view, when the claims are read in view of the drawings and the disclosure indicated by Appellants, they circumscribe a particular area with a reasonable degree of precision and particularity as they would be interpreted by one of ordinary skill in the art. The indefiniteness rejection is reversed.

Obviousness

3. Claims 3-8, 13-20, 37-42, 59, 60, 64, and 65 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Takano in view of McBride. Appellants provide separate argument for claims 16 and 19, and therefore we address these claims individually and select these claims as representative claims.

4. Claims 11, 12, 22-24, 45, 46 and 61-63 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Racine in view of McBride. We select claims 61 and 62 as representative of this rejection as Appellants have not separately argued other individual claims.

FINDINGS OF FACT

1. "Takano teaches the claimed closure and container except for the resilient liner molded onto the disk 9. See column 3, lines 19-21 regarding the plastic material. See figure 6 depicting the protrusion 14 extending around a peripheral portion of the flat disk." (Ans. 4.)

2. McBride teaches it is known to mold a resilient liner 40 onto a disk 30. (Col. 3, ll. 25-42.) The liner disc seal material enhances the sealing effect of the liner disc with the bottle neck. (Col. 1, ll. 56-65.)

3. The Examiner finds that "[i]t would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teaching of a resilient liner molded onto the disk for engaging the mouth of an associated container. Doing so provides a more effective and reliable seal between the closure cap and the container." (Ans. 3.)

4. The Examiner finds that

> Regarding the liner as a barrier layer, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the resilient liner of a barrier material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. Doing so maintains the integrity of the container contents against degradation.

(Ans. 4.)

5. "Racine teaches a closure having a plastic disk 28 having a flat base wall with a depending annular 38 ring and a depending rib (unnumbered) located radially outwardly of the ring. Racine does not teach a resilient liner molded onto the disk." (*Id.*)

6. The Examiner finds that

> It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teaching of a resilient liner molded onto the disk for engaging the mouth of an associated container. Doing so provides a more effective and reliable seal between the closure cap and the container.

(*Id.* at 4-5.)

ISSUE

The Examiner finds that

> It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teaching of a resilient liner molded onto the disk for engaging the mouth of an associated container. Doing so provides a more effective and reliable seal between the closure cap and the container.

(*Id.* at 4-5.)

Appellants contend that "[a]lthough the McBride reference unquestionably discloses a resilient liner molded onto the disk 30, there is no basis in either this reference or the Takano reference for combining these two references as suggested by the Examiner." (App. Br. 11.) Appellants also contend there is no motivation to combine Racine with McBride. (App. Br. 14.)

The main issue with respect to each obviousness rejection is: Have Appellants demonstrated that there is no reason to combine the cited references?

PRINCIPLES OF LAW

The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; and (3) the level of skill in the art. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966).

Section 103 forbids issuance of a patent when "the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007).

The Supreme Court reaffirmed principles based on its precedent that "[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *Id.* at 416. The operative question in this "functional approach" is thus

"whether the improvement is more than the predictable use of prior art elements according to their established functions." *Id.* at 417. It is proper to "take account of the inferences and creative steps that a person of ordinary skill in the art would employ." *Id.* at 418. *See also id.* at 421 ("A person of ordinary skill is also a person of ordinary creativity, not an automaton.").

"[T]he discovery of an optimum value of a variable in a known process is normally obvious." Exceptions to this rule include (1) the results of optimizing a variable were unexpectedly good and (2) the parameter optimized was not recognized in the prior art as one which would affect the results. *In re Antonie*, 559 F.2d 618, 620 (CCPA 1977).

ANALYSIS

Claim 16

Appellants contend that "[a]lthough the McBride reference unquestionably discloses a resilient liner molded onto the disk 30, there is no basis in either this reference or the Takano reference for combining these two references as suggested by the Examiner." (App. Br. 11.) Appellants also contend there is no motivation to combine Racine with McBride. (App. Br. 14.)

We agree with the Examiner's analysis and rationale in the statement of each of the rejections and with the Examiner's response to Appellants' arguments as set forth in the Answer, page 4, and adopt them as our own. In addition, we provide the following comment.

With respect to Appellants' argument that there is no reason to combine the cited references, we find that McBride suggests to one of ordinary skill in the art that the liner disc seal material enhances the sealing

effect of the liner disc with the bottle neck. (Col. 1, ll. 56-65.) (FF2.) While not needed for our decision, we find that this teaching of McBride provides a legally sufficient reason to one of ordinary skill in the art combine the cited references of Takano, McBride and Racine. We are not persuaded by Appellants' argument.

Claim 19

Appellants contend that "dependent claim 19 recites that the liner includes a barrier resin material to resist migration of gases, water vapor or flavorants through the liner. McBride teaches that the seal layer 40 of that reference can be Kraton, which is a thermoplastic rubber, or Santoprene, which is an EPDM/PP elastomeric alloy. Neither of these materials is a barrier resin as recited in claim 19." (App. Br. 12-13.)

The Examiner finds that

> Regarding the liner as a barrier layer, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the resilient liner of a barrier material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. Doing so maintains the integrity of the container contents against degradation.

(Ans. 4.)

While the Specification, page 5, provides examples of barrier materials, we do not find that this portion of the Specification limits what persons of ordinary skill in the art would consider to be barrier resins. The Specification broadly indicates that barrier materials

preferably resist migration of gases, water vapor, or flavorants through the liner and the closure shell. (Spec. 5.)

In view of the above, we find the Examiner has the better argument. The Appellants have not shown that the disclosed materials of the seal layer of McBride do not resist migration of gases, water vapor, or flavorants through the liner and the closure shell. Furthermore, Appellants have not shown that it is not within the skill of one of ordinary skill in the art to optimize the seal layer of McBride. The rejection of claim 19 is affirmed.

Claims 61 and 62

In addition to the arguments presented with respect to claim 16, Appellants contend that the combination of Racine and McBride does not disclose an annular rib, as claimed. (App. Br. 14.) *See* Specification, page 10, Figs. 8 and 10; rib 78.

The Examiner finds that Racine

> Depict[s] "an annular rib around a radially outer edge of the disk base extending away from said base wall". The annular rib once covered by the resilient liner would engage the liner "against a radially outer edge of a container finish when said closure is secured to the container finish". Thus, the structure meets the claimed invention set forth in claim 62.

See Racine, Figs. 7-11 and ribbed annular ring 28. (Ans. 6.)

We do not find that Appellants have addressed why ribbed annular ring 28 does not meet the annular rib limitation claimed. The rejection of claims 61 and 62 is affirmed.

CONCLUSION OF LAW

Appellants have not demonstrated that there is an insufficient reason to combine the cited references. Each of the obviousness rejections is affirmed.

SUMMARY

The enablement and indefiniteness rejections are reversed. The obviousness rejections are affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED-IN-PART

cdc

REISING, ETHINGTON, BARNES, KISSELLE, P.C.
P.O. BOX 4390
TROY MI 48099-4390